KW transmitter, and three transmit antennas. Selection of antennas and their alignments, modems, receivers, transmitters and frequency assignments are all computer controlled which allows rapid changes in configuration to meet evolving test requirements.

TERMINAL EQUIPMENT

In addition to a wide variety of telephone instruments, JITC has a vast inventory of terminal equipment. This inventory includes devices such as the AN/UGC-74 teletype, AN/UXC-7 facsimile, and the AN/USC-43 Advanced Narrowband Digital Voice Terminal (ANDVT).

ADDITIONAL INFORMATION

To obtain more information about the JITC Joint Test Facility, its capabilities and procedures, please contact the following JITC representatives:

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JOINT TEST FACILITY (JTF)

Joint Interoperability Test Command

JOINT TEST FACILITY

The Joint Test Facility (JTF) is approximately 16 acres in size and contains five test Nodes, labeled A, B, C, D, & X. Node A consists of a COMSEC vault and the Patch and Test Facility (PTF). The PTF provides interconnectivity between the Distributed Network Control Center (DNCC) and each of the five test nodes. The PTF has connectivity through the DNCC to CECOMs Software Engineering Center, the US Army Intelligence Command's Test Facility at Hayes Hall, the Army Signal Command's Technical Integration Center, the Defense Switched Network's Anaheim Switch, and the Army's Interoperability Network (AIN) T-1 Network. Nodes B, C, & D have nearly identical test facilities consisting of a hardstand, where equipment can be located, and a 1,800 square foot indoor test space. Node X is the hub of our High Frequency (HF) test facility. All of the nodes are interconnected to the PTF using approximately 75 miles of underground cable. Connectivity to the matrix switch in the DNCC is via both fiber optic and copper cable. The PTF has an Operational

Strategic/Tactical/Entry Point (STEP) site with an IDNX 20, FCC-100, SMU with Comsec, a Timeplex multiplexer, and a D4 channel bank.

SWITCHING SYSTEMS

To support switch testing, we have the Army's Tri-Service Tactical Communications Program (TRI-TAC) switches: the AN/TTC-39A(V)1 and AN/TTC-39D circuit switches, the Air Force/ Marine Corps Unit Level Circuit Switch (ULCS) AN/TTC-42; the Mobile Subscriber Equipment (MSE); and the Traffic Loading Devices (TLDs). The AN/TTC-39D offers a packet switching and flood searching capability at Corps and higher. The AN/TTC-42 and AN/SB-3865 (ULCS) provide a digital voice and data switching capability that is interoperable with the Army's and Air Force's AN/ TTC-39A(V)1, 3, & 4 switches. The MSE suite

consists of the Nodal Control Station (AN/TTC-47C), the Large Extension Node (AN/TTC-46), the Small Extension Node (AN/TTC-47) and the Radio Access Unit (AN/TRC-191A). The MSE supports digital switching and permits battlefield coverage with both fixed installation phones as well as mobile radio phones. A good analogy of this system is the commercial cellular phone systems that are so prevalent in the private sector. MSE gives commanders at all echelons the ability to communicate up and down the chain of command regardless of where they are on the battlefield.

In our testing environment, a Traffic Loading Device (TLD) is used to stress the various circuit switches by placing over 3,000 calls per hour. It is capable of emulating Digital Non-Secure Voice Telephone (DNVT) instruments in the DoD inventory. Another traffic loading device, Ameritec, is available to load both analog and digital channels of strategic switches.

TRANSMISSION SYSTEMS

The JTF has numerous transmission systems to support communications path testing. For entry into the Defense Satellite Communications System (DSCS), the Ground Mobile Forces (GMF) AN/ TSC-85B(V)2, equipped with a 20' QRSA antenna, is our satellite hub terminal (one that is typically used by the Army and Marine Corps). Other transmission systems in the JTF include the AN/TRC-170 troposcatter radio terminal, the AN/ TRC-173/175 microwave radio terminals, and the AN/TRC-174/138A microwave radio repeater systems.

HIGH FREQUENCY SYSTEMS

The HF Test Facility is a classic HF radio control facility with spatially separated transmitter and receiver sites controlled via Line-of-Sight (LOS) microwave. X-Node is the control site that houses the primary radio control consoles and computers, remote test equipment control systems, patch and test facility, HF Narrowband Channel Simulator, and other facilities for system testing. The receiver site, located one mile east of JITC, has six HF receive antennas that terminate on a 4 x 8 antenna switching matrix, allowing operation of selected receivers on any of the installed antennas. The transmitter site is located approximately 30 miles north of the JTF compound. The HF transmitter facility includes three 1KW transmitters, one 10